



for their dorm room

Asterisk Foils VLOOKUP

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Reader Jeff Mayo wrote us about having difficulty using the VLOOKUP() function with the range_lookup argument—set sometimes to True and sometimes to False—to try to find part numbers with names like 700*BTM17530A*2*XL and 700*BTM17530A*XL in a huge list. The trouble turns out to be the asterisks in the part numbers. Let's see why.

The VLOOKUP() function finds a match for a specified value in the first column of an array and returns the corresponding value in another column. If range_lookup is set to False, VLOOKUP() returns only an exact match. If range_lookup is set to True and the array is sorted on its first column, VLOOKUP() will use the largest item less than or equal to the specified value. You wouldn't normally set range_lookup to True for something like a parts list; you want an exact match.

Why are the asterisks a problem? When you do a Find or Find/Replace operation in Excel, the asterisk is treated as a wildcard representing zero or more characters. A search on "t*r" would match "tear," "terror," and "terminator," as well as just "tr."

The VLOOKUP() function works in the same way. If part number PART*A*1 or PART1 or PARTITION1001 comes earlier in the list than PART*1, a VLOOKUP() on PART*1 will erroneously match it. Why? Because it's looking for any text that starts with "PART" and ends with "1" with any number of characters in between, as you can see in our example.

You don't have to change your part-numbering system completely to avoid the asterisk; you can work around the problem fairly easily. In the Find dialog, you must use the string "~*" to search for an actual asterisk, and that also works with VLOOKUP(). So, in every VLOOKUP() formula involving these part numbers, you'll change the first argument, the one that specifies what to look for. Suppose the formula is seeking a match for cell A2. Replace A2 with SUBSTITUTE(A2,"*", "~*"). Now the VLOOKUP() function will treat the asterisks as asterisks, not as wild cards.

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